

SEQUENCE LISTING

<110> Anderson, Christen M.
 Davis, Robert E.
 Clevenger, William
 Wiley, Sandra Eileen
 Willer, Scott W.
 Szabo, Tomas R.
 Ghosh, Soumitra S.
 Moos, Walter H.
 Pei, Yazhong

<120> PRODUCTION OF ADENINE NUCLEOTIDE TRANSLOCATOR (ANT),
 NOVEL ANT LIGANDS AND SCREENING ASSAYS THEREFOR

<130> 660088.420D6

<140> US

<141> 2001-03-16

<160> 37

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 894

<212> DNA

<213> Homo sapien

<400> 1

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gccagcaaac	agatcagtgc	tgagaagcag	tacaaaggga	tcattgattg	tgtggtgaga	180
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tacttcccca	cccaagctct	caacttcgcc	ttcaaggaca	agtacaagca	gctcttctta	300
gggggtgtgg	atcggcataa	gcagttctgg	cgctactttg	ctggtaacct	ggcgtccggt	360
ggggcgctg	gggccacctc	cctttgcttt	gtctaccgcg	tggactttgc	taggaccagg	420
ttggctgctg	atgtgggcag	gcgcgccag	cgtgagttcc	atggctctgg	cgactgtatc	480
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caaggcatca	ttatctatag	agctgcctac	ttcggagtct	atgatactgc	caaggggatg	600
ctgcctgacc	ccaagaacgt	gcacattttt	gtgagctgga	tgattgcca	gagtgtgacg	660
gcagtgcag	ggctgctgtc	ctaccctttt	gacactgttc	gtcgtagaat	gatgatgcag	720
tccggccgga	aaggggccga	tattatgtac	acggggacag	ttgactgctg	gaggaagatt	780
gcaaaagacg	aaggagccaa	ggccttcttc	aaagggtcct	ggtccaatgt	gctgagaggc	840
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<210> 2

<211> 897

<212> DNA

<213> Homo sapien

<400> 2

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gccagcaagc	agatcactgc	agataagcaa	tacaaaggca	ttatagactg	cgtggtccgt	180
attcccaagg	agcaggaagt	tctgtccttc	tggcgcggta	acctggccaa	tgtcatcaga	240

tacttcccca	cccaggtctt	taacttcgcc	ttcaaagata	aatacaagca	gatcttcctg	300
ggtggtgtgg	acaagagaac	ccagtttttg	cgctactttg	cagggaatct	ggcatcgggt	360
ggtgccgcag	gggccacatc	cctgtgtttt	gtgtaccctc	ttgattttgc	ccgtaccctg	420
ctagcagctg	atgtgggtaa	agctggagct	gaaagggaa	tccgaggcct	cggtgactgc	480
ctggttaaga	tctacaaatc	tgatgggatt	aagggcctgt	accaaggcct	taacgtgtct	540
gtgcagggtg	ttatcatcta	ccgagccgcc	tacttcggta	tctatgacac	tgcaaaggga	600
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actgctgttg	ccgggttgac	ttcctatcca	tttgacaccg	ttcgccgccg	catgatgatg	720
cagtcagggc	gcaaaggaa	tgacatcatg	tacacaggca	cgcttgactg	ctggcggaag	780
attgctcgtg	atgaaggagg	caaagctttt	ttcaagggtg	catggtccaa	tgttctcaga	840
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<210> 3

<211> 897

<212> DNA

<213> Homo sapien

<400> 3

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atctccaaga	cgcccggtgg	tccgatcgag	cggttcaagc	tgctgctgca	ggtccagcac	120
gccagcaagc	agatcgccgc	cgacaagcag	tacaagggca	tcgtggactg	cattgtccgc	180
atccccaagg	agcagggcgt	gctgtccttc	tggaggggca	accttgccaa	cgtcattcgc	240
tacttcccca	ctcaagccct	caacttcgcc	ttcaaagata	agtacaagca	gatcttcctg	300
gggggcgtgg	acaagcacac	gcagttctgg	aggtactttg	cgggcaacct	ggcctccggc	360
ggtgcggccg	gcgcgacctc	cctctgcttc	gtgtaccgcg	tggattttgc	cagaacccgc	420
ctggcagcgg	acgtgggaaa	gtcaggcaca	gagcgcgagt	tccgaggcct	gggagactgc	480
ctggtgaaga	tcaccaagtc	cgacggcatc	cggggcctgt	accagggctt	cagtgtctcc	540
gtgcagggca	tcatcatcta	ccgggcggcc	tacttcggcg	tgtacgatac	ggccaagggc	600
atgctccccg	accccaagaa	cacgcacatc	gtggtgagct	ggatgatcgc	gcagaccgtg	660
acggccgtgg	ccggcggtgt	gtcctacccc	ttcgacacgg	tgccggcgcg	catgatgatg	720
cagtcggggc	gcaaaggagc	tgacatcatg	tacacgggca	ccgtcgactg	ttggaggaag	780
atcttcagag	atgagggggg	caaggccttc	ttcaaagggtg	cgtggtccaa	cgtcctgcgg	840
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<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

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43

<210> 5

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 5

tatataggta ccttagacat attttttgat ctcatcatac aac

43

<210> 6

<211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer

<400> 6
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<210> 7
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer

<400> 7
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<210> 8
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer

<400> 8
 ttatatctcg agtatgacgg aacaggccat ctccttcgcc aaa 43

<210> 9
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR Primer

<400> 9
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<210> 10
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Sequence primer

<400> 10
 tatgccatag catttttatc c 21

<210> 11
 <211> 18
 <212> DNA

<213> Artificial Sequence

<220>

<223> Sequence primer

<400> 11

cgccaaaaca gccaaagct

18

<210> 12

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Mutagenic oligonucleotide primer

<400> 12

ggagatggcc tggtccgtca tcttatcgtc atcgtcgtac agatc

45

<210> 13

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Mutagenic oligonucleotide primer

<400> 13

gatctgtacg acgatgacga taagatgacg gaacaggcca tctcc

45

<210> 14

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 14

cccggggaat tctgatgacg gaacaggcca tctcc

35

<210> 15

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 15

cccgggctcg agttagagtc accttcttga gctc

34

<210> 16

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 16

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41

<210> 17

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 17

ttaaagaatt cttagatcac cttcttgagc tcgtcgta g

41

<210> 18

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequencing primer

<400> 18

aatgataac catctcgc

18

<210> 19

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequencing primer

<400> 19

acttcaagga gaatttc

18

<210> 20

<211> 18

<212> DNA

<213> Artificial Sequence

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<223> Sequencing primer

<400> 20

acttcgcctt cacggata

18

<210> 21

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequencing primer

<400> 21
tacggccaag ggcattct 18

<210> 22
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequencing primer

<400> 22
tgaagcggaa gttcctat 18

<210> 23
<211> 18
<212> DNA
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<220>
<223> Sequencing primer

<400> 23
atgccggttc ccgtacga 18

<210> 24
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Mutagenic oligonucleotide primer

<400> 24
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<210> 25
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Mutagenic oligonucleotide primer

<400> 25
cgacgatgac gataagatga cggaacaggc c 31

<210> 26
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 26

ttaaagaatt catgacggaa caggccatct ccttcgcaa a

41

<210> 27
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 27

ttataggatc cttagatcac cttcttgagc tcgtcgtaca g

41

<210> 28
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 28

ttaatgggta ccatgacgga acaggccatc tccttcgcca aa

42

<210> 29
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> PCR primer

<400> 29

ttatactcga gttagatcac cttcttgagc tcgtcgtaca gg

42

<210> 30
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 30

Cys Trp Arg Lys Ile Phe Arg Asp Glu Gly Gly Lys Ala Phe Phe
 1 5 10 15

<210> 31
 <211> 297
 <212> PRT
 <213> Homo sapien

<400> 31

Met Gly Asp His Ala Trp Ser Phe Leu Lys Asp Phe Leu Ala Gly Ala
 1 5 10 15
 Val Ala Ala Ala Val Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
 20 25 30

Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Ser Ala Glu
 35 40 45
 Lys Gln Tyr Lys Gly Ile Ile Asp Cys Val Val Arg Ile Pro Lys Glu
 50 55 60
 Gln Gly Phe Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg
 65 70 75 80
 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
 85 90 95
 Gln Leu Phe Leu Gly Gly Val Asp Arg His Lys Gln Phe Trp Arg Tyr
 100 105 110
 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu
 115 120 125
 Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
 130 135 140
 Val Gly Arg Arg Ala Gln Arg Glu Phe His Gly Leu Gly Asp Cys Ile
 145 150 155 160
 Ile Lys Ile Phe Lys Ser Asp Gly Leu Arg Gly Leu Tyr Gln Gly Phe
 165 170 175
 Asn Val Ser Val Gln Gly Ile Ile Ile Tyr Arg Ala Ala Tyr Phe Gly
 180 185 190
 Val Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Val His
 195 200 205
 Ile Phe Val Ser Trp Met Ile Ala Gln Ser Val Thr Ala Val Ala Gly
 210 215 220
 Leu Leu Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met Gln
 225 230 235 240
 Ser Gly Arg Lys Gly Ala Asp Ile Met Tyr Thr Gly Thr Val Asp Cys
 245 250 255
 Trp Arg Lys Ile Ala Lys Asp Glu Gly Ala Lys Ala Phe Phe Lys Gly
 260 265 270
 Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu Val
 275 280 285
 Leu Tyr Asp Glu Ile Lys Lys Tyr Val
 290 295

<210> 32
 <211> 298
 <212> PRT
 <213> Homo sapien

<400> 32
 Met Thr Asp Ala Ala Leu Ser Phe Ala Lys Asp Phe Leu Ala Gly Gly
 1 5 10 15
 Val Ala Ala Ala Ile Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
 20 25 30
 Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Thr Ala Asp
 35 40 45
 Lys Gln Tyr Lys Gly Ile Ile Asp Cys Val Val Arg Ile Pro Lys Glu
 50 55 60
 Gln Glu Val Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg
 65 70 75 80
 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
 85 90 95
 Gln Ile Phe Leu Gly Gly Val Asp Lys Arg Thr Gln Phe Trp Arg Tyr
 100 105 110
 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu
 115 120 125

Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
 130 135 140
 Val Gly Lys Ala Gly Ala Glu Arg Glu Phe Arg Gly Leu Gly Asp Cys
 145 150 155 160
 Leu Val Lys Ile Tyr Lys Ser Asp Gly Ile Lys Gly Leu Tyr Gln Gly
 165 170 175
 Phe Asn Val Ser Val Gln Gly Ile Ile Tyr Arg Ala Ala Tyr Phe
 180 185 190
 Gly Ile Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Thr
 195 200 205
 His Ile Val Ile Ser Trp Met Ile Ala Gln Thr Val Thr Ala Val Ala
 210 215 220
 Gly Leu Thr Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met
 225 230 235 240
 Gln Ser Gly Arg Lys Gly Thr Asp Ile Met Tyr Thr Gly Thr Leu Asp
 245 250 255
 Cys Trp Arg Lys Ile Ala Arg Asp Glu Gly Gly Lys Ala Phe Phe Lys
 260 265 270
 Gly Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu
 275 280 285
 Val Leu Tyr Asp Glu Ile Lys Lys Tyr Thr
 290 295

<210> 33
 <211> 298
 <212> PRT
 <213> Homo sapien

<400> 33
 Met Thr Glu Gln Ala Ile Ser Phe Ala Lys Asp Phe Leu Ala Gly Gly
 1 5 10 15
 Ile Ala Ala Ala Ile Ser Lys Thr Ala Val Ala Pro Ile Glu Arg Val
 20 25 30
 Lys Leu Leu Leu Gln Val Gln His Ala Ser Lys Gln Ile Ala Ala Asp
 35 40 45
 Lys Gln Tyr Lys Gly Ile Val Asp Cys Ile Val Arg Ile Pro Lys Glu
 50 55 60
 Gln Gly Val Leu Ser Phe Trp Arg Gly Asn Leu Ala Asn Val Ile Arg
 65 70 75 80
 Tyr Phe Pro Thr Gln Ala Leu Asn Phe Ala Phe Lys Asp Lys Tyr Lys
 85 90 95
 Gln Ile Phe Leu Gly Gly Val Asp Lys His Thr Gln Phe Trp Arg Tyr
 100 105 110
 Phe Ala Gly Asn Leu Ala Ser Gly Gly Ala Ala Gly Ala Thr Ser Leu
 115 120 125
 Cys Phe Val Tyr Pro Leu Asp Phe Ala Arg Thr Arg Leu Ala Ala Asp
 130 135 140
 Val Gly Lys Ser Gly Thr Glu Arg Glu Phe Arg Gly Leu Gly Asp Cys
 145 150 155 160
 Leu Val Lys Ile Thr Lys Ser Asp Gly Ile Arg Gly Leu Tyr Gln Gly
 165 170 175
 Phe Ser Val Ser Val Gln Gly Ile Ile Ile Tyr Arg Ala Ala Tyr Phe
 180 185 190
 Gly Val Tyr Asp Thr Ala Lys Gly Met Leu Pro Asp Pro Lys Asn Thr
 195 200 205
 His Ile Val Val Ser Trp Met Ile Ala Gln Thr Val Thr Ala Val Ala
 210 215 220

Gly Val Val Ser Tyr Pro Phe Asp Thr Val Arg Arg Arg Met Met Met
 225 230 235 240
 Gln Ser Gly Arg Lys Gly Ala Asp Ile Met Tyr Thr Gly Thr Val Asp
 245 250 255
 Cys Trp Arg Lys Ile Phe Arg Asp Glu Gly Gly Lys Ala Phe Phe Lys
 260 265 270
 Gly Ala Trp Ser Asn Val Leu Arg Gly Met Gly Gly Ala Phe Val Leu
 275 280 285
 Val Leu Tyr Asp Glu Leu Lys Lys Val Ile
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<210> 34

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplification of human ANT3 for expression construct

<400> 34

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41

<210> 35

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplification of human ANT3 for expression construct

<400> 35

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42

<210> 36

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplification of EYFP

<400> 36

gggccctcg agatggtgag caaggcgag

30

<210> 37

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer for PCR amplification of EYFP

<400> 37

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33